

REMARKS

Applicants respectfully request consideration of this application. The following arguments are provided to impart precision to the claims, by more particularly pointing out the invention, rather than to avoid prior art.

Drawings

The drawings have been objected under 37 CFR §1.83(a). Specifically, the drawings have been objected to for failure to show “said carbon-based cladding of said second signal line is continuous with said carbon-based cladding of said first signal line” of claim 3.

Applicants respectfully submit **Figure 7** illustrates “said carbon-based cladding of said second signal line is continuous with said carbon-based cladding of said first signal line” of claim 3. Reference 26 in **Figure 7** is a layer of carbon-based cladding deposited onto the upper surface of the dielectric board member 24. A metallization pattern 30 is formed on the upper surface of a layer of carbon-based cladding 26. The metallization pattern 30 can include, for example, signal line traces. Another layer of carbon-based cladding 32 is applied to the top and side portions the metallization pattern 30, as shown in **Figure 7**.

Because the layer of carbon-based cladding 26 deposited is connected to a first portion of the second layer of carbon-based cladding 32 and an adjacent portion of the second layer of carbon-based cladding 32, the carbon-based cladding is uninterrupted or continuous. Thus, **Figure 7** illustrates a carbon-based cladding of a portion of a metallization pattern 30, such as a second signal line, that is continuous

with a carbon based cladding of a second portion of a metallization pattern 30, such as a first signal line. Therefore, **Figure 7** shows "said carbon-based cladding of said second signal line is continuous with said carbon-based cladding of said first signal line" of claim 3 meeting the requirements of 37 CFR 1.83(a).

35 U.S.C. § 102(e) Rejections

Claims 1, 2, 4, 5, and 8 have been rejected under 35 U.S.C. 102(e) as being anticipated by Sandhu, U.S. Patent No. 6,084,302 ("Sandhu").

Claim 1

Applicants respectfully disagree that Sandhu anticipates claim 1 because Sandhu does not include each and every element of claim 1.

Claim 1 discloses a printed circuit board including a carbon-based cladding over a portion of a conductive member. Specifically, claim 1 discloses "a first signal line supported on said dielectric board member." The first signal line "including an elongated electrically conductive member that is enshrouded with a carbon-based cladding over at least a portion of the elongated conductive member."

Sandhu discloses a method for fabricating an integrated circuit interconnect upon a semiconductor substrate. In this method a copper interconnect is formed. Next, a **metal** is embedded or inserted into the copper interconnect to provide an **introduced metal**, such as titanium, tantalum, tungsten, chromium, and aluminum. A gas is reacted with the **introduced metal** to form a barrier layer cladding upon the copper interconnect. Substantially all of the **introduced metal** diffuses to the

surface of the copper interconnect and reacts with the gas. Once the **introduced metal** reacts with the gas, the resistivity of the interconnect is substantially equal to that of copper. Thus, this cladding is a metal-based cladding.

Because Sandhu does not disclose printed circuit board having a first signal line "including an elongated electrically conductive member that is enshrouded with a **carbon-based** cladding over at least a portion of the elongated conductive member," Sandhu fails to anticipate claim 1.

Claims 2, 4, 5, and 8

Applicants respectfully submit that claims 2, 4, 5, and 8 depend on independent claim 1 and include all the limitations of claim 1. As such, claims 2, 4, 5, and 8 are patentable for at least the same reasons as claim 1.

Allowable Subject Matter

Applicants thanks the Examiner for indicating that claims 3, 6, and 7 contain allowable subject matter if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants respectfully submit that because the claims depend on claim 1, the claims are patentable for at least the same reasons as claim 1.

New Claims

Applicants added new claims 30-41 to better encompass the invention in the application. Applicants respectfully submit claims 30-41 are allowable for at least the reasons set forth above.

CONCLUSION

Applicants respectfully submit that the objection and the rejections have been overcome by the remarks. Accordingly, Applicants respectfully request the objection and the rejection be withdrawn and the claims allowed. If the allowance of these claims could be facilitated by a telephone conference, the Examiner is invited to contact the undersigned at (408) 720-8300.


Pursuant to 37 C.F.R. § 1.136(a)(3), applicants hereby request and authorize the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. §1.16 and §1.17, to Deposit Account No. 02-2666.

Respectfully submitted,

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